





OUR MISSION

To function as a centralized hub to provide the opportunity for students to develop leadership and interpersonal skills, practical experience, and exposure within the natural hazards research fields.







HOW WE SUPPORT GRADUATE STUDENTS

- Build a diverse graduate community for natural hazard researchers.
- Connect students with diverse mentors in the natural hazards' community.
- Provide support for students to attend natural hazards, research, and career workshops.
- Encourage diversity, equity, and inclusion (DEI) conversations.
- Facilitate learning about the impact of research on natural hazards practice.
- ◆ Coordinate leadership, service, and funding opportunities.





2024 Year in Review

The NHERI Graduate Student Council began the 2024 year with the introduction of new Executive Committee Members. These individuals have brought fresh perspectives and energy to the organization, ensuring the continuation of our mission to support and advance the interests of graduate students involved in natural hazards research. Throughout the year, we have actively worked to increase our membership and involvement.

NHERI GSC was established with the primary objective of fostering a sense of community and collaboration among graduate students engaged in the field of natural hazard research.







The NHERI GSC is governed by an elected Executive Committee, consisting of a President, Vice-President, Secretary, Vice-Secretary, Treasurer, and Vice-Treasurer. Additionally, the organization has several (6) Standing Committees each comprised of a Chair and Vice-Chair, who work collaboratively with the Executive Committee, to oversee various critical areas of focus. NHERI GSC's Standing Committees including Membership; Workshops & Mentoring; Diversity, Equity & Inclusion; Research; Networking & Community Building; and Technology & Communication. Additionally, the NHERI GSC appoints a User Forum Representative to advocate for the interests of graduate students within the broader NHERI Network's User Forum.

OFFICERS	President	Membership	C
	Vice-President	Workshops & Mentoring	
	Secretary	Diversity, Equity & Inclusion	STAN
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0	Treasurer	Networking & Community Building	G
	Vice-Treasurer	Technology & Communication	





In 2024, the first class of Research Subcommittee Representatives was introduced to represent the diverse research areas within our organization. These representatives serve as a bridge between the varied disciplinary interests of our members and the Executive Committee. They have facilitated interdisciplinary collaboration, enabling graduate students to share knowledge, foster partnerships, and identify new avenues for exploration.

- Coastal Engineering
- Earthquake Engineering
- Geotechnical Engineering
- Reconnaissance

- Simulation & Computational Modeling
- Social Science
- Wind Engineering

The Graduate Student Council has been instrumental in organizing and hosting several successful events, including our annual NHERI GSC Mini-Conference which highlighted the impressive work being done by our students. This conference provided a valuable platform for graduate students to present their research, network with peers, and receive feedback from faculty mentors. Additionally, students were invited to prepare and present a session at the Natural Hazards Summit. Those interested in attending the session collaboratively worked on an interactive workshop with a presentation, panel session, and activities. The 90-minute session focused on overcoming research doubts and building an online research presence to develop the portfolios of graduate students and early career faculty.







Meeting Schedule

We continued with our established meeting schedule where the first Friday of each month would be dedicated to Executive Committee meetings, while the third Friday would be reserved for general body meetings. These general body gatherings facilitate networking and collaboration among members and feature guest speakers along with research breakout sessions, enabling peers with shared research interests to connect and engage in fruitful discussions.





Guest Speaker Series

General body meetings played host to esteemed speakers from diverse domains within natural hazards research. Past speakers have included representatives from the NHERI SimCenter; representatives from NHERI research facilities, such as Drs. Tim Cockerill and Julio Ramirez; Chair of the NHERI Science Plan Task Group, Dr. Ian Robertson; StEER Associate Director of Standards, Dr. David Roueche; and experts focusing on various topics – including diversity, equity, and inclusion – as well as navigating the transition from PhD student to Assistant Professor.

Zoom Socials

Recognizing the importance of building a robust sense of engagement and community among its members, the NHERI GSC initiated Zoom social events. These socials occur at least once per semester and serve as an alternative to the standard general body meetings, fostering a more informal and relaxed atmosphere for interaction and camaraderie.





Moving forward, the NHERI Graduate Student Council remains committed to advocating for the needs and interests of graduate students within the natural hazards research community. We will continue to facilitate interdisciplinary collaboration, provide professional development opportunities, and amplify our members' voices within the natural hazards research community.

As the organization continues to evolve and expand, NHERI GSC remains committed to its mission of advancing knowledge and collaboration within the natural hazards research community.







MEMBERSHIP TRENDS & DEMOGRAPHICS

The NHERI GSC registration for membership began on August 1st, 2023. Unlike other groups within the natural hazards field, NHERI GSC does not charge a membership fee and registration remains open year-round. Since registration does not close and renewal of membership is not required, the membership information found below is a snapshot of the new memberships captured within the specified timeframe and does not represent the NHERI GSC as a whole.

To become an NHERI GSC member, complete the online registration form found on the NHERI GSC home page (https://www.designsafe-ci.org/learning-center/nheri-graduate-student-council/).





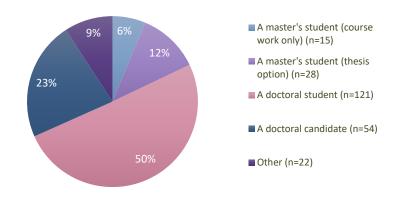
Year 3: August 2023 – July 2024

As the NHERI GSC entered its third year, its membership continued to grow. The third-year registration again comprised mainly PhD students (50%). Representation of PhD candidates increased (23%), while membership for new master's students remained the same. Membership in the third year had a larger percentage of those who identified as male (63%). A slightly greater percentage of students reported being the first generation in their family to earn a bachelor's degree (46%). Seventy-one percent of members hailed from 24 countries outside the United States, increasing by 40% since the second year. Many of our new members currently study at Carnegie classified R1 universities (72%). And while many of our new members are studying civil engineers, fifty percent of our new members come from fields outside of civil engineering. See the following figures for full demographic details.

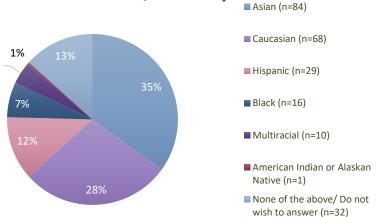




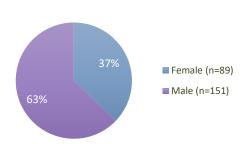
Level of Degree



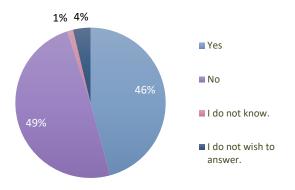
Race/Ethnicity



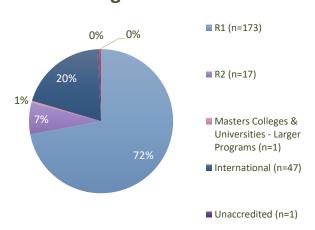
Gender



First-Generation



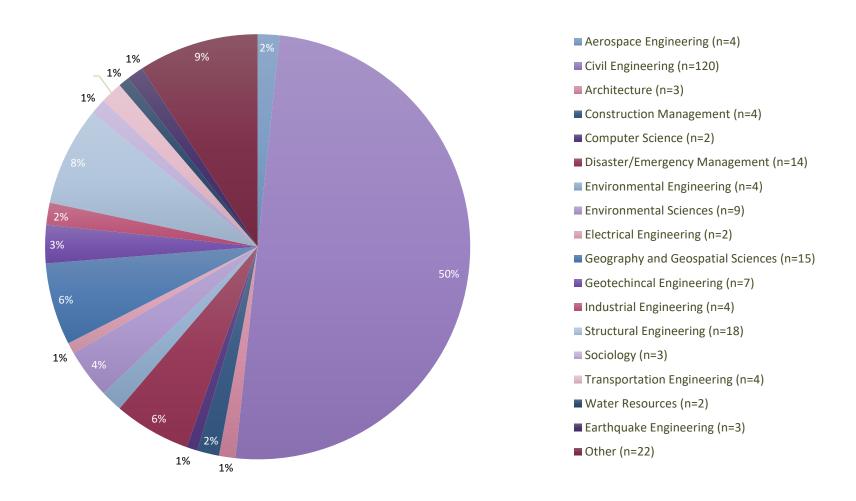
Carnegie Classification





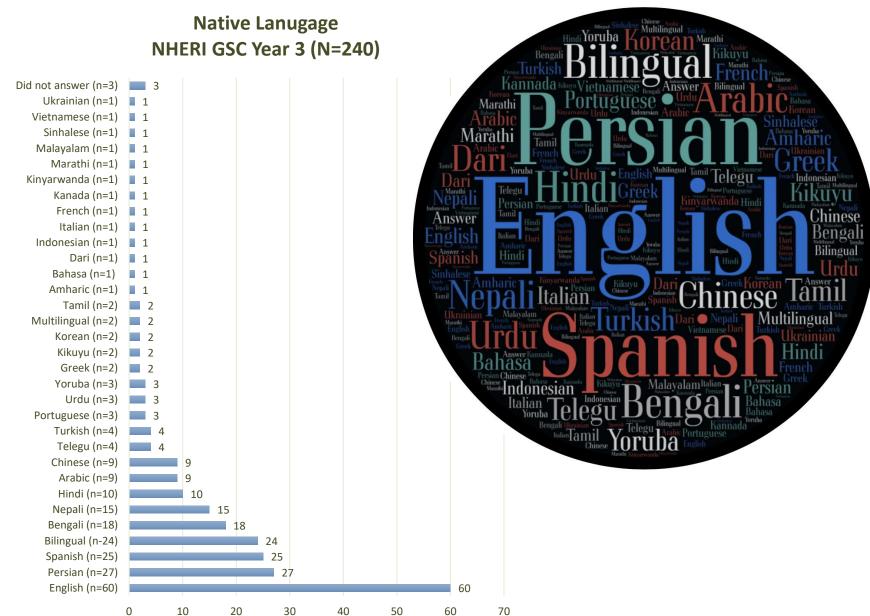


Areas of Study NHERI GSC Year 3 (N=240)





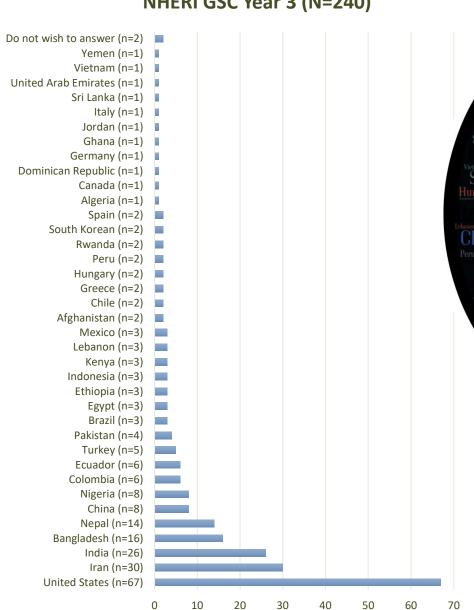








Country NHERI GSC Year 3 (N=240)









ACTIVITIES & ACCOMPLISHMENTS

Within the 2024 year, our organization's various Standing Committees undertook a range of significant initiatives and activities, each contributing to our mission of fostering collaboration, promoting research excellence, and advancing diversity, equity, and inclusion (DEI) within the natural hazards research community. In this section, we provide summaries of the accomplishments and endeavors of each of our Standing Committees. These summaries offer insight into the diverse array of initiatives that these committees undertake and highlight their contributions to NHERI GSC's overarching goals.

Workshops and Mentoring Standing Committee

The NHERI GSC Workshops & Mentoring Standing Committee hosted a workshop titled, "Transitioning from PhD to Academia" during the 2024 year. The panel consisted of two assistant professors, Drs. Mohsen Zaker Esteghamati of the University of Utah and Luis Zambrano-Cruzatty of the University of Maine. They are both recent graduates from Virginia Tech and they provided insightful tips and tricks learned from their transitions from PhD student to Assistant Professor. This engaging panel provided perspectives on the challenges of shifting from student to faculty member, with over 60 graduate students attending this session.





Diversity, Equity, and Inclusion (DEI) Standing Committee

This year, the NHERI GSC DEI Standing Committee continued to pursue its mission of raising awareness about DEI topics within the natural hazards research community. Key achievements and activities include the following:

- DEI Resources Page: The committee updated the previously established openaccess DEI resources page on the NHERI GSC website. Notable additions to the page were anti-racism materials created by Diversity Arts Australia and the British Council and Diversity Talks.
- DEI-Focused Guest Speakers & Meetings: The committee hosted interdisciplinary natural hazards researchers in its standing committee meetings, such as Dr. Elania Sutley, whose talk was titled "Integrating Equity into Community Resilience Analysis." Dr. Sutley educated the graduate community about the disparities in impact and recovery processes during and after disasters. The DEI committee also held a brainstorming session for students interested in submitting an abstract to the 2024 Social Equity Leadership Conference (SELC) at the University of Connecticut.
- ◆ **Grant Writing:** The DEI committee leadership of Harman Singh, along with assistance from the NHERI GSC Treasurer, Natalie Coleman, wrote a successful grant to facilitate travel to the 49th Annual Natural Hazards Research and Applications Workshop and Researcher's Meeting at the Natural Hazards Center at the University





of Colorado Boulder. The DEI committee leadership also helped create a grant writing template and presentation for NHERI GSC to use in future endeavors.

◆ DEI Workshops: The group is developing and will disseminate a workshop in 2024 to NHERI GSC members and NHERI Research Experience for Undergraduates (REU) students for a third consecutive year.

The NHERI GSC DEI Standing Committee remains committed to its mission and looks forward to further advancing diversity, equity, and inclusion within the NHERI GSC community in the coming years.

Research Standing Committee

In 2024, the NHERI GSC Research Standing Committee implemented a comprehensive program of activities aimed at promoting cooperation, creativity, and information sharing in the field of resilience to hazards and disaster research.

◆ 2024 NHERI GSC Mini-Conference: Held on May 31, 2024, this event served as the focal point of these efforts. A dedicated group of NHERI GSC members diligently planned this event, offering a full day of stimulating conversations, thought-provoking presentations, and cooperative networking. Chair of the Research Standing Committee, Nurullah Bektas, led the organizational efforts, assisted by Vice Chair of Research Soolmaz Koskalam, Former Chair of Research Rakesh Salunke, Treasurer





Natalie Coleman, NHERI GSC member Payam Gholamalipour, and Chair of Workshop and Mentoring Rajendra Gautam. The keynote speaker, Dr. Yasemin Didem Aktas, thoroughly reviewed recent developments and issues in earthquake engineering and resilience. Dr. Aktas delivered an insightful lecture on hybrid reconnaissance work and shared examples from reconnaissance missions. The miniconference featured two paper sessions and four poster sessions showcasing a wide range of research topics. A full book of proceedings has been published on DesignSafe's DataDepot (https://doi.org/10.17603/ds2-tk6h-rv44).

• Research Subcommittee Representative (RSR) Sessions: The Research Standing Committee arranged several RSR Sessions. The Executive Committee and RSRs assisted in organizing the first session, which took place on April 19. These sessions provide members with the opportunity to present their research to their peers, receive feedback, and network with other researchers within their field. In the second session on May 17, presentations were given by Bijan Sayyaf Zadeh on "OpenSRANE, a Flexible and Extensible Platform for Quantitative Risk Assessment of NaTech Events," and Himadri Sen Gupta on "Multi-objective Optimization of Mitigation Strategies for Buildings Subject to Multiple Hazards." The third session, which took place on June 21, featured research by Sourav Dey on "Microclimate-Induced Hazard Dynamics Over Highly Dense Urban Area of India." The presenters received certificates of gratitude.





 Presenting NHERI GSC at an International Conference: The Research Standing Committee has organized a session titled "NHERI GSC – Student-Driven Leadership in Natural Hazards" at the WCEE2024 - 18th World Conference on Earthquake Engineering in Milan Italy on July 1. This session provided an opportunity for researchers to know more about NHERI GSC.

Networking & Community Standing Committee

The Networking & Community Committee hosted two virtual social events (December 2023 and June 2024) that brought together members of NHERI GSC in a laid-back, fun environment to get to know each other and play games to celebrate the end of the semester. In July 2024, the Networking & Community Building Committee also collected information on who from NHERI GSC would be attending the Natural Hazards Workshop, a major interdisciplinary conference attended by several NHERI GSC members. The committee created a WhatsApp group to connect members and facilitated an informal coffee hour and dinner on the last day of the conference. Members expressed they were delighted to meet one another face-to-face, beyond the Zoom environment. The Networking and Community Building Committee is currently collaborating with other standing committees to develop a list of conferences frequented by NHERI GSC members. This list will serve as a database, giving members conference inspiration and helping remind them to connect in-person when able.







Membership Standing Committee

The Membership Standing Committee has played a pivotal role in managing and expanding the membership of NHERI GSC. Over the past year, membership numbers have significantly increased. The strategy to reach potential members—graduate students interested in natural hazards research—involved biannual campaign emails targeted at universities, faculties, and professional organizations. These campaign emails are sent at the beginning of the year in January and again in August to align with the start of the new academic calendar.





As the membership has grown substantially this year, ongoing efforts are being made to expand international membership, specifically targeting graduate students outside the United States who are engaged in natural hazards research. The goal is to inform them about NHERI GSC and the opportunities available for members to learn more and benefit from NHERI resources.

Engagement with graduate students at conferences has also been a fruitful approach. Notably, participation in the Natural Hazards Research Summit at the University of Maryland and the NHERI Computational Symposium at UCLA have proven to be excellent venues for connecting with potential members. These events have resulted in a noticeable surge in membership registration. There is great anticipation for continued growth in the coming year.

Social Media & Outreach Standing Committee

The Social Media & Outreach Standing Committee plays a crucial role in communicating and sharing information with the large and varied NHERI GSC membership worldwide. Over the past two years, the committee has consistently and effectively kept in touch with members, ensuring they are informed about NHERI GSC activities, events, and the latest studies in the field of natural hazards through various social media platforms. As part of a multi-platform communication plan, the committee actively engages in LinkedIn, Facebook, Instagram, and X (formerly known as Twitter) and emails members about important updates and events. Additionally, they have ensured that graduate students and researchers in





natural hazards stay up-to-date on new technologies, trends, research and development progress, notable speakers, and upcoming events through these channels. This approach has facilitated both in-person and online participation, creating a lively and active community within NHERI GSC.

The Social Media & Outreach Committee's dedication to effective communication has been a key factor in strengthening the group and ensuring all members have access to the tools and information they need to succeed in natural hazards research. These initiatives have solidified the group's position as a trustworthy source of information and an important meeting place for natural hazards enthusiasts worldwide.

NHERI User Forum Representative

At the NHERI User Forum's (UF) direct request, NHERI GSC approved an amendment to the NHERI GSC Constitution to extend the term of office for the NHERI UF representative from one year to two years.

During the 2024 NHERI NCO February meeting, the 2023 NHERI GSC Annual Report was presented at the NHERI UF's request. The report received positive feedback. Additionally, there were two requests from the NHERI NCO to the NHERI GSC following this presentation. The first was to expand the NHERI GSC membership base to include more graduate students at universities outside the United States, a task already initiated in coordination with the NHERI GSC Membership Standing Committee. The second was to





discuss and identify potential opportunities to support the NHERI GSC's future growth, a discussion already held in several NHERI GSC Executive Committee meetings.

Dr. León-Corwin, responsible for overseeing the UF's survey, attended the 2023 NHERI GSC August meeting to provide a brief introduction to the survey and its significance. She later attended the 2024 NHERI GSC Executive Committee May meeting to discuss how best to integrate graduate student perspectives and concerns into the next survey iteration.





INDIVIDUAL MEMBER SPOTLIGHTS

In the spirit of recognizing the exceptional contributions of our NHERI GSC members, we proudly highlight in this section the achievements and endeavors of individuals who have significantly enriched our community. These dedicated members represent a diverse range of research interests and accomplishments, showcasing the remarkable talent and dedication within our organization.

Daniel Yahya

Daniel Yahya, a PhD student at Auburn University, specializes in advancing building and community resilience against natural and climatological hazards by integrating engineering with emerging technologies such as machine learning and computer vision. His involvement in the NHERI GSC has provided him with funding opportunities to attend conferences such as the NHERI Computational Symposium and the Natural Hazards Research Summit.



"I have benefited greatly from this community of natural hazard researchers through insightful monthly events. These opportunities have allowed me to expand my knowledge of natural hazards research beyond my own work. Additionally, travel awards to conferences have enabled me to present my research, engage in meaningful discussions with professionals, and expand my professional network. Furthermore, my leadership skills have been enriched through my role as the Chair of Membership for NHERI GSC."





Natalie Coleman

Natalie Coleman, an August 2024 PhD graduate of Texas A&M University, uses an interdisciplinary approach of civil engineering, data science, and disaster research to investigate the physical and social vulnerabilities of a community for equitable infrastructure and lifestyle recovery. Her involvement in the NHERI GSC has provided her with funding opportunities to attend conferences such as the NHERI Summer Research Institute and the Natural Hazards Research Summit.



"NHERI GSC has provided professional growth opportunities, networking connections, and a platform to contribute to the research community. I have participated in the 2023 NHERI Summer Research Institute, 2024 Natural Hazards Research Summit, and NHERI GSC Mini-Conference. These experiences taught me about natural hazards research technologies, applications, and grant writing. Whether through virtual or in-person events, the supportive network of NHERI GSC is a continual source of inspiration."



Amina Meselhe

Amina Meselhe, a PhD student at Oregon State University, specializes in simulating the impact coastal hazards have on coastal communities and their subsequent recovery. Her involvement in the NHERI GSC has provided her with the funding to attend the Natural Hazards Research Summit where she led the organization





of the NHERI GSC hosted workshop, "Building Your Professional Brand: The Importance of Networking and Establishing a Research Story."

"The NHERI GSC has served as both a great source of inspiration and a source of support for myself and other graduate students engaged in natural hazards research. Through workshops, conferences, and committees, this group has introduced me to other students with similar experiences and interests. The culmination of this into presenting collaborative work at the mini-conferences or developing a session for students and early career researchers has been empowering personally and professionally."

Himadri Sen Gupta

Himadri Sen Gupta, a PhD candidate at the University of Oklahoma, specializing in optimization and machine learning techniques to enhance community resilience and disaster response for natural hazards. Himadri was one of the first presenters at the new RSR Sessions where he presented his work on, "Multi-objective optimization of mitigation strategies for buildings subject to multiple hazards," providing him with valuable feedback from peers in his area of research.

"Joining NHERI GSC has enriched my experience by providing valuable feedback and insights. Networking opportunities have fostered collaborations and expanded my research perspectives. Access to webinars and workshops keeps my research current. Being part of this supportive community has made my journey more impactful and fulfilling."





Shriya Thakkar

Shriya Thakkar, a PhD candidate from Louisiana State University, is a medical sociologist and mixed methods researcher specializing in health inequalities focusing on genders, disasters, and aging. Her involvement in NHERI GSC provided her with the opportunity to attend the Natural Hazards Workshop to present her research on how disasters impact mental health in the United States.

"The NHERI GSC has fostered a strong sense of community and belonging among fellow grad students, allowing me to exchange new research ideas. My attendance at the weekly meetings has benefited my research career. These sessions featured insightful research seminars and invited speakers who present their work which enhanced my academic development."

These exemplary members, alongside others within the NHERI GSC, have harnessed the organization's resources and opportunities to further their research and connect with peers. Their involvement in workshops and events has not only expanded their networks but also elevated their profiles within the field of natural hazards research. These individual spotlights serve as a testament to the exceptional talent and collaborative spirit that defines the NHERI GSC community.





Finally, we would also like to recognize all the additional members who presented their work at the NHERI GSC Mini-Conference:

- Genesis Leong
- James Githinji
- Anamika Malla
- Shelley McMullen
- Saanchi Kaushal
- Miriam Nielsen
- Milima Islam Luba
- Jayant Paudel
- Wesam Mohamed
- Ayele Chala

- Sibomasinbi Marie
 Gisele
- Duc Nguyen
- Sai Brindha Kapalayam
- Zhang Jingjie
- Samuel Silitonga
- Ammar Alnmr
- Bolaji Lawal
- Amina Meselhe
- Nischal Kafle

- Alireza
 Eskandarinejad
- Jayasekara Heeralu
- Hamidatou Mouloud
- Benjamin Labar
- Rajendra Gautam
- Burak Duran
- Bijan Sayyaf Zadeh
- Himadri Sen Gupta
- Sourav Dey





FINANCIAL OVERVIEW

The NHERI GSC does not receive annual operation funds. Instead, the National Science Foundation (NSF) provides funding to the NHERI Education and Community Outreach (ECO) to support five NHERI GSC members to attend the NHERI Summer Institute each year. Additionally, the NHERI Network Coordination Office has offered travel awards to GSC members to attend other events each year. In 2024, the NCO opened travel award applications for the Natural Hazards Research Summit as well as the Natural Hazards Workshop. In total, thirteen members were awarded travel funds for the events. Further, other NHERI components receive NSF funding to provide travel awards for participants to attend their events. In 2024, many GSC members have benefitted from these travel awards to attend events such as the NHERI Computational Symposium.

Conference	Funding Support	Students Registered	Students Funded
2024 NHERI Computational Symposium	NHERI SimCenter	19	17
2024 Natural Hazards Research Summit	NCO and ECO	27	6
2024 Natural Hazards Workshop	CONVERGE and NCO	10	7
2024 NHERI Summer Institute	NCO and ECO	6	5





Funding to attend these events included stipends for event registration, travel, housing, and/or food for multiple days. NHERI GSC and its members are immensely grateful for this generous support that provides invaluable learning and networking opportunities to students. NHERI GSC is especially thankful to Dr. Lori Peek, director of the Natural Hazards Center at the University of Colorado Boulder, and Dr. Grace Yan, chair of the board for the North American Alliance for Hazards and Disaster Research Institutes (NAAHDRI), for their generous support in the form of the NAAHDRI Rising Star Award. This award sponsored graduate student registration (\$500) to attend the Natural Hazards Workshop. We also want to acknowledge the NHERI NCO for providing a travel award of \$800 to the students who attend the Natural Hazards Workshop. Additional support to our students came from the SimCenter (\$1300) to attend the NHERI Computational Symposium.



Rising Star Awardees. Pictured from left to right: Amber Spears, Harman Singh, Wesam Mohamed, Dr. Grace Yan, Hannah Friedrich, and Anamika Malla.





ACKNOWLEDGMENTS

The NHERI GSC is grateful for the support of the NHERI network throughout its first two years. The group would not be possible without the contributions of NHERI NCO, NHERI ECO, and many of the NHERI sites and facilities. We would like to recognize the following individuals who provided support, knowledge, feedback, and/or mentorship as the group found its footing.

The NHERI GSC thanks the NHERI NCO for its continued support and funding. In total, the NHERI NCO has funded 19 NHERI Summer Institute participants since 2022, 12 Americas Conference of Wind Engineering presenters in 2022, and 15 Natural Hazards Research Summit presenters in 2022 and 2024 from the NHERI GSC. NHERI NCO's contribution has developed networks of support for these participants and helped prepare our members for future work that will mitigate damage from natural hazards and prevent loss of life, in alignment with the NHERI Science Plan. The NHERI GSC also thanks the NHERI ECO Committee for its continued commitment to developing educational programming to support and broaden the pipeline of natural hazards scholars through the NHERI REU Summer Program, NHERI GSC, and NHERI Summer Institute. NHERI GSC is extremely grateful for this generosity and support.





Further, NHERI GSC would like to thank the NHERI sites, facilities, committees, and individual natural hazard researchers who have shared their expertise, knowledge, and resources with our membership in general meetings and workshops over the last year. Thank you for mentoring the next generation of natural hazard researchers.

- Indian Institute of Technology Delhi Sinha Sumeet Kumar
- ♦ NHERI NOC Julio Ramirez
- NHERI DesignSafe Tim Cockerill
- NHERI Science Plan Task Group Ian Robertson
- University of Oklahoma Aikaterini Kyprioti
- University of Utah Mohsen Zaker Esteghamati
- University of Maine Luis Zambrano Cruzatty
- RESILE at Duke University William Ferris
- Pacific Northwest National Laboratory Tim Babcock and Casey McGrath
- Auburn University David Roueche
- ♦ NHERI User Forum Maggie Leon-Corwin
- University College London Yasemin Didem Aktas

Annual Report Contributing Authors

NHERI GSC acknowledges the NHERI GSC Executive Committee for contributing content for this annual report. The following individuals provided additional assistance in writing, compiling, and copyediting the document:

- Jordan Nakayama
- Natalie Coleman

- Robin Nelson
- Shelley McMullen







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